

Winter Storm Severity Index – Alaska North Slope

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Focus Group Agenda

Introduction to the Project and Introduction of all Participants

Pre-session survey

Scenario

Post-session survey

Winter Storm Scenario T-5

SPECIAL WEATHER STATEMENT

National Weather Service FAIRBANKS AK

400 PM AKST Fri Jan 17

Western Arctic Coast-Northern Arctic Coast- Central Beaufort Sea Coast-Northwestern Brooks Range-Northeastern Brooks Range-

Including Wainwright, Atkasuk, Point Lay, Cape Lisburne, Utqiagvik, Alaktak, Pitt Point, Nulavik, Nuiqsut, Prudhoe Bay, Alpine, Deadhorse, Kuparuk, Singilik, Umiat, Anaktuvuk Pass, Atigun Pass, Galbraith Lake Sagwon, and Franklin Bluffs

...A Strong Winter Storm Possibly Impacting the North Slope Next Week...

A strong storm may bring blizzard conditions, heavy snow, and high winds across the North Slope Borough. Elevated water levels are likely along the Chukchi Sea Coast. Power outages and travel delays are possible.

This system could initially bring strong east winds, which combined with falling snow could result in very low visibility along the Chukchi and Beaufort Sea Coasts. This would also bring heavy snow and strong winds to the Brooks Range and inland North Slope. In the Wednesday through Friday timeframe the system is expected to move into the Beaufort Sea, bringing strong westerly winds and elevated waters to the Chukchi Sea coast with a potential for coastal flooding.

The National Weather Service in Fairbanks will continue to monitor this storm as it develops over the next several days. Please visit weather.gov/fairbanks for the latest update.

Have you used Special Weather Statements before? What are you thinking right now? Are you taking any action?



Strong Winter Storm Possible Next Week For North Slope

Created: 1/17 04:00PM AKST

Where:

- North Slope, including the Chukchi and Beaufort Sea Coasts

When:

- Tuesday night through Friday night

What:

- Potential for:
 - Heavy Snow
 - Strong Winds
 - Blizzard Conditions
 - Coastal Flooding

Additional Details:

- Confidence for this storm is moderate, so stay tuned for more updates.
- Check the official forecast at www.weather.gov/afg for details.

Forecast Confidence



National Weather Service Fairbanks, AK



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What about this product? Do you use forecast confidence information like this? How?

Winter Storm Scenario T-2

URGENT - WINTER WEATHER MESSAGE

National Weather Service Fairbanks AK

400 PM AKST Sun Jan 19

Northern Arctic Coast- Including Utqiagvik, Alaktak, Pitt Point, and Nulavik

...WINTER STORM WATCH IN EFFECT FROM WEDNESDAY AFTERNOON
THROUGH FRIDAY MORNING...

* WHAT... Heavy snow and blowing snow possible. Plan on very low visibility and difficult travel conditions. Blizzard conditions possible. Total snow accumulations of up to 6 inches are possible.

* WHERE....Northern Arctic Coast including Utqiagvik.

* WHEN...From Wednesday morning through Friday morning.

* ADDITIONAL DETAILS... Winds gusting as high as 60 mph will cause areas of blowing and drifting snow reducing visibility to one quarter mile or less at times. Power outages are possible due to the strong winds.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Winter Storm Watch means there is potential for significant snow, sleet or ice accumulations that may impact travel. Continue to monitor the latest forecasts.

How does this winter weather message change your actions? Do Winter weather Watches trigger any particular actions?



Information on Winter Storm for North Slope

Winter Storm Briefing for North Slope

National Weather Service Fairbanks, Alaska



National Weather Service Fairbanks, AK



@NWSFairbanks

Have you seen briefing packages like this before?



Winter Storm Watches Issued for North Slope Storm

Created: 1/20 04:00PM AKST

Where:

- North Slope, including the Chukchi and Beaufort Sea coasts

When:

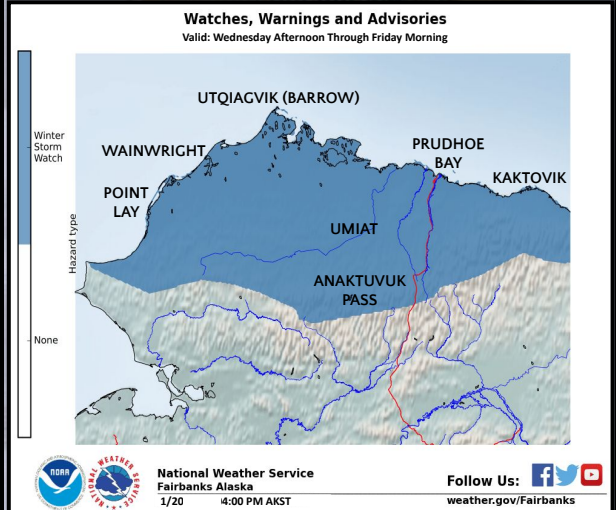
- Watches begin Wednesday afternoon and last through Friday morning.

What:

- **Heavy snow and strong winds expected. Blizzard conditions possible in coastal areas.**
 - Snowfall amounts of 3-6" in coastal areas, 12-18" in Brooks Range.
 - Winds gusting to 60 mph in coastal areas

Additional Details:

- Travel may be very difficult to impossible at times due to low visibility
- Power outages may be possible



National Weather Service Fairbanks, AK



How helpful is this information to you? What other information are you looking for?
Would you be sharing this with anyone?



Coastal Flood Watches Issued for North Slope Storm

Created: 1/20 04:00PM AKST

Where:

- Along the Chukchi Sea coast from Point Lay to Utqiagvik

When:

- Watches begin Thursday morning and last through Friday morning.

What:

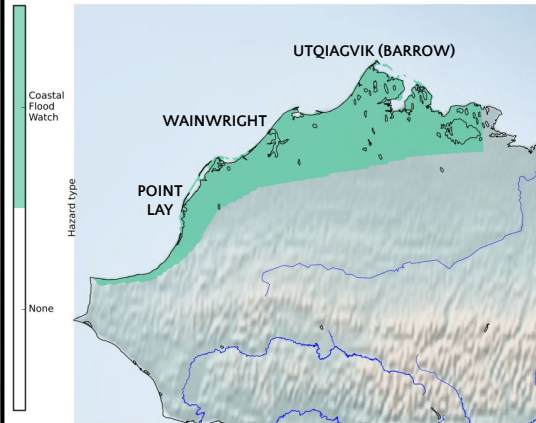
- Potential for coastal flooding and high surf from Point Lay to Utqiagvik.
 - Water levels around 4-8 feet above normal high tide line

Additional Details:

- Beach erosion expected
- Roads along the coast may be impacted
- Coastal residents should take action to protect property

Watches, Warnings, and Advisories

Valid: Thursday Morning Through Friday Morning



National Weather Service
Fairbanks Alaska

1/20, 04:00 PM AKST

Follow Us:   
weather.gov/Fairbanks



National Weather Service Fairbanks, AK



@NWSFairbanks

How does a coastal flood watch change your understanding of your risk? What other information would you be looking for right now?



Contact Information

If you have any questions or want more details on this storm please contact the National Weather Service one of the following ways:

Email us at fairbanks.weather@noaa.gov

Facebook: <https://www.facebook.com/NWSFairbanks/>

Twitter at @NWSFairbanks

More details at <https://www.weather.gov/Fairbanks>



National Weather Service Fairbanks, AK



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Is there other information you would want to see in a briefing package like this?

Winter Storm Scenario T-1

URGENT - WINTER WEATHER MESSAGE

National Weather Service Fairbanks AK

500 AM AKST Tue Jan 21

Northern Arctic Coast- Including Utqiagvik, Alaktak, Pitt Point, and Nulavik

...BLIZZARD WARNING IN EFFECT FROM 6 AM WEDNESDAY TO 4 AM AKST FRIDAY...

* WHAT...Blizzard conditions expected. Heavy snow, strong winds, and blowing snow expected. Travel will be very difficult to impossible. Total snow accumulations of 4 to 6 inches are expected.

* WHERE...Northern Arctic Coast.

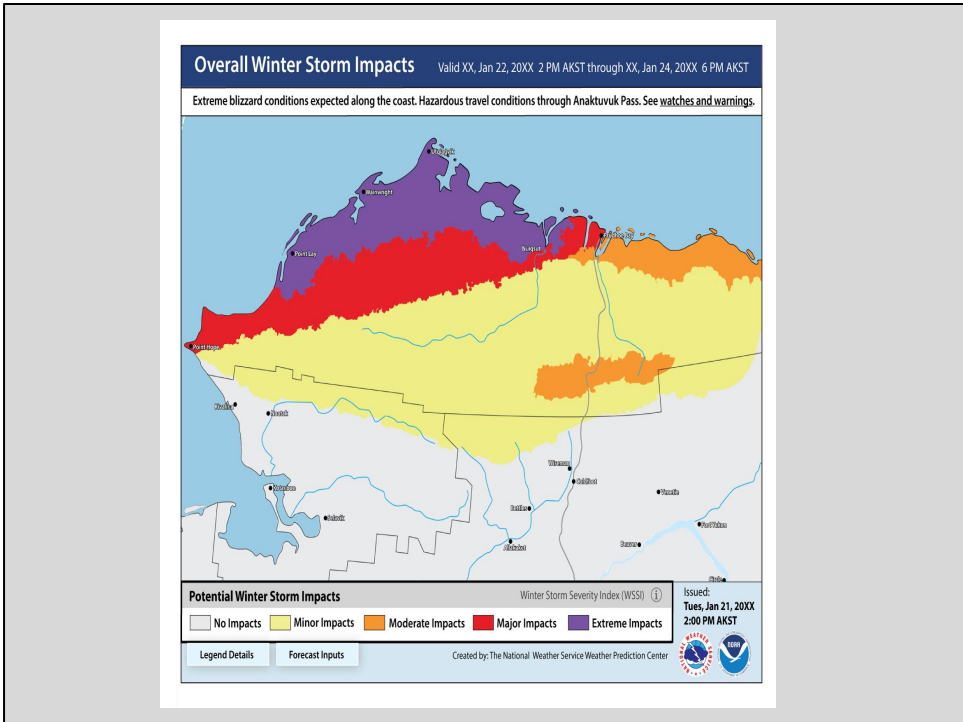
* WHEN...6 AM Wednesday to 4 AM Friday.

* ADDITIONAL DETAILS...Winds gusting as high as 60 mph will cause frequent whiteout conditions. Winds will start from the southeast on Wednesday, switching to from the northwest by Thursday morning. Significant drifting of the snow is likely. Power outages are possible due to strong winds.

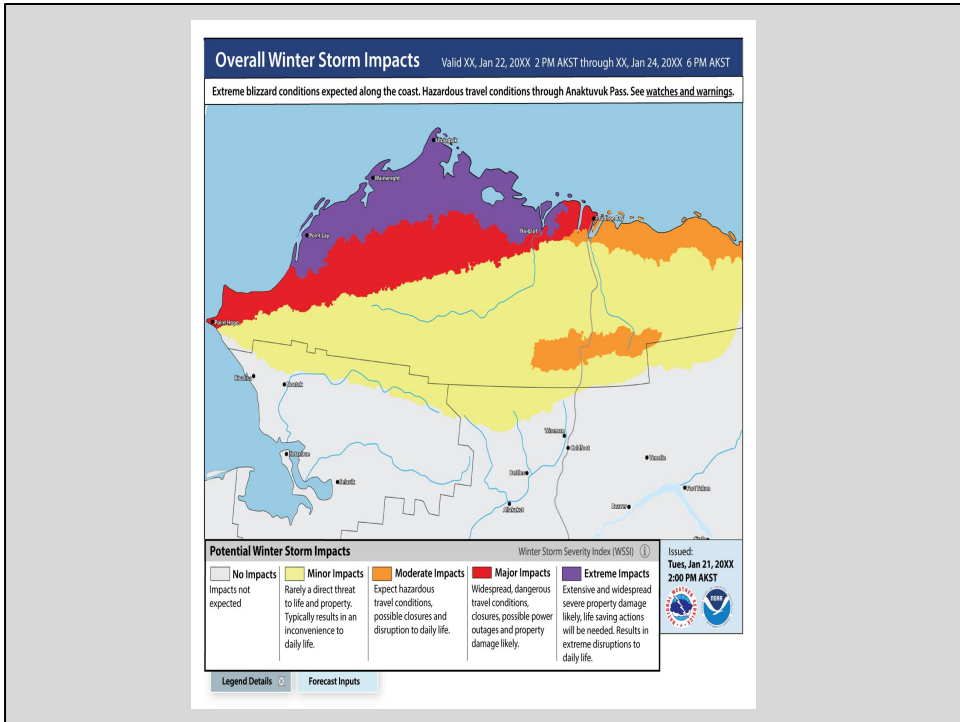
PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Blizzard Warning means severe winter weather conditions are expected or occurring. Falling and blowing snow with strong winds and poor visibilities are likely. This will lead to whiteout conditions, making travel extremely difficult.

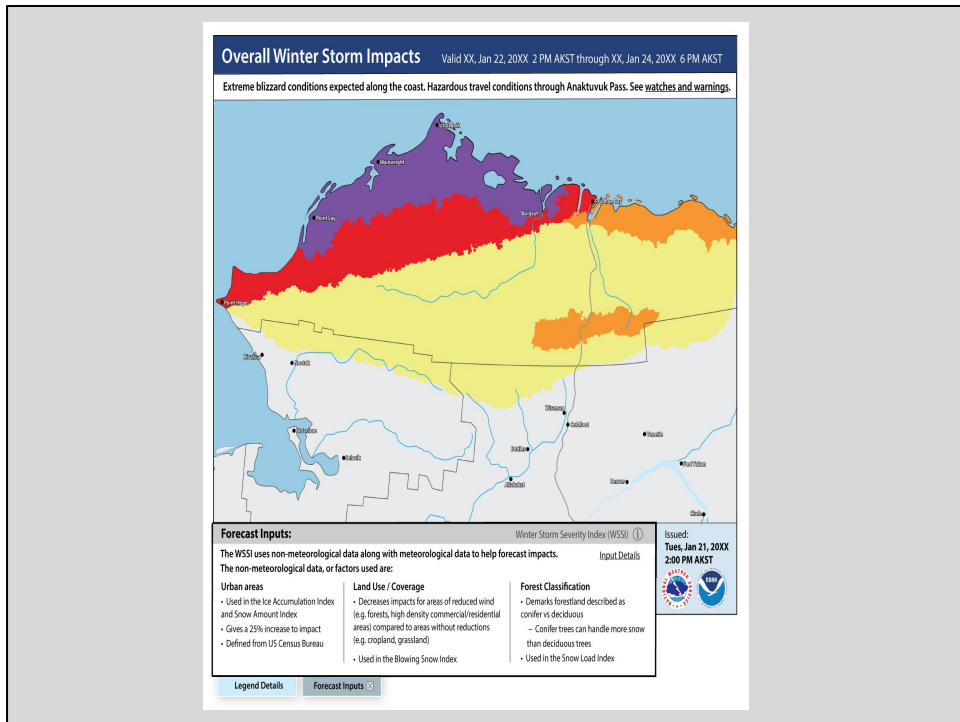
Now a Blizzard Warning: how does that change things? What are you doing now?
Are you looking for more information?



What is this product telling you? How do you interpret the impact levels? What else do you want to know based on this graphic?



This version shows a more complete legend description. How do these impact definitions meet your decision-making needs? Is this product possibly useful to you? How? What else would it need to be useful? Would you share this product with others, and if so, with whom?



Let's study this legend a little more closely. This legend tells you some of the background factors that are used to determine the impact levels (that is, what is considered extreme or major or moderate and why). Is this information helpful to you? What else would you be looking for when using this product? Which impacts are you most concerned about when looking at this product?

Mention forecaster's note and ask if that is helpful. What types of information would you like to see in this element?



Information on Winter Storm for North Slope

January 21st Winter Storm Briefing for North Slope

National Weather Service Fairbanks, Alaska



National Weather Service Fairbanks, AK



@NWSFairbanks



Warnings Issued for Strong Storm Impacting the North Slope

Created: 1/21 04:00PM AKST

Where:

- North Slope, including the Chukchi and Beaufort Sea Coasts

When:

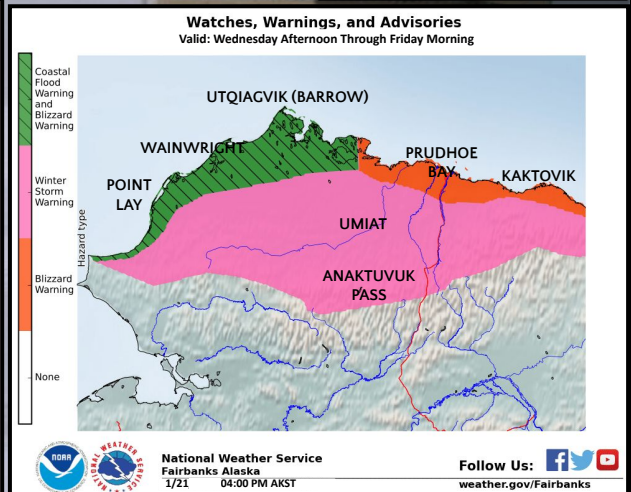
- Wednesday Afternoon Through Friday Morning

What:

- Heavy snow and strong winds across the area.
- Blizzard conditions expected along the coast from Cape Lisburne to Kaktovik.
- Coastal Flooding from Point Lay to Utqiagvik.

Additional Details:

- Check the official forecast at www.weather.gov/afg for details on snowfall amounts, wind speeds, and coastal flooding potential, as well as regular updates to the forecast.



National Weather Service Fairbanks, AK



More briefing slides: watches, warnings and advisories: are these things you are looking for?



Storm Timeline

Created: 1/21 04:00PM AKST

Wednesday

- ❑ Heavy snow and strong winds increasing
- ❑ Blizzard conditions developing
- ❑ Travel becoming very difficult to impossible
- ❑ East winds gusting to 50-60 mph in most areas
- ❑ Southwest winds gusting to 90mph near Cape Lisburne.

Thursday

- ❑ Continued blizzard conditions with snow and strong winds
- ❑ Travel remaining very difficult to impossible
- ❑ West winds gusting to 35-45 mph.
- ❑ Water levels increasing along Chukchi Sea Coast

Friday

- ❑ Blizzard conditions and winds diminishing
- ❑ Travel conditions and visibility improve.
- ❑ Water levels peak early in the morning, and gradually decrease but remain high after that.

Wednesday Night

- ❑ Continued blizzard conditions with heavy snow and strong winds.
- ❑ Travel remaining very difficult to impossible
- ❑ Winds still gusting 50-60 mph, wind direction shifting to west overnight

Thursday Night

- ❑ Blizzard conditions continue, but winds and snow gradually decrease overnight
- ❑ Travel remaining very difficult to impossible
- ❑ Water levels peaking, coastal flooding and erosion expected



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Timing information: how important is this detailed timing information. What else would you like to see related to timing of the storm?



Coastal Flood Warning

Created: 1/21 04:00PM AKST

Where:

- From Point Lay to Utqiagvik

When:

- Thursday Morning Through Friday Morning
- Peak water levels 11PM Thursday to 5AM Friday

What:

- Coastal flooding in low lying areas.
 - Damage to roads near the coast.
 - Erosion of protective berms or bluffs.
 - Beach erosion.
- Expected Water levels above normal high tide line:
- Utqiagvik: **6-7 feet**
 - Point Lay and Wainwright: **7-8 feet**

Additional Details:

- New sea ice may be deposited on some beaches.



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Blizzard Warnings

Created: 1/21 04:00PM AKST

Where:

- Along the coast from Cape Lisburne to Kaktovik

When:

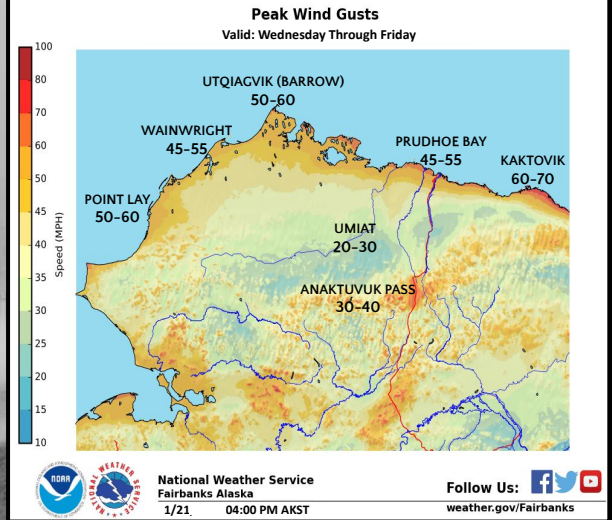
- Wednesday Afternoon through Friday Morning

What:

- Winds gusting to **50-60 mph** with frequent whiteout conditions. Cape Lisburne gusting to **90 mph**.
 - Strongest wind gusts are generally expected to be Wednesday evening
- Heavy snow:
 - Storm totals of **3-6 inches**

Additional Details:

- Travel will be very difficult to impossible
- Power outages are possible due to strong winds
- Significant drifting of snow is likely



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Winter Storm Warnings

Created: 1/21 04:00PM AKST

Where:

- Brooks Range and Inland North Slope

When:

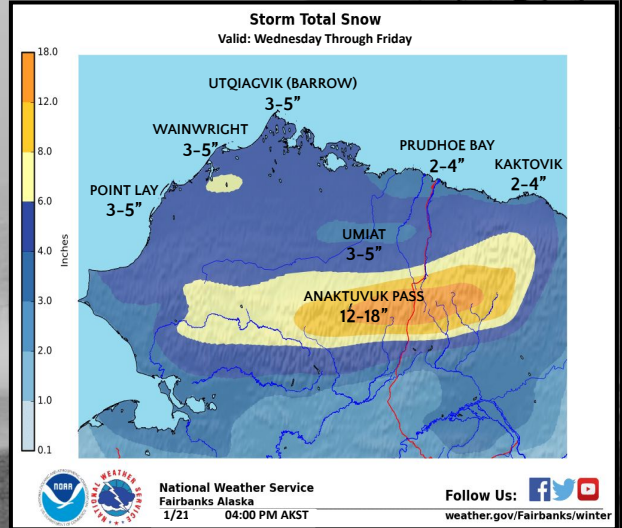
- Wednesday Afternoon through Friday Morning

What:

- Heavy snow:
 - Storm totals of **12-18 inches**
- Winds gusting up to **40 mph** significantly reducing visibility at times.

Additional Details:

- Travel will be very difficult at times



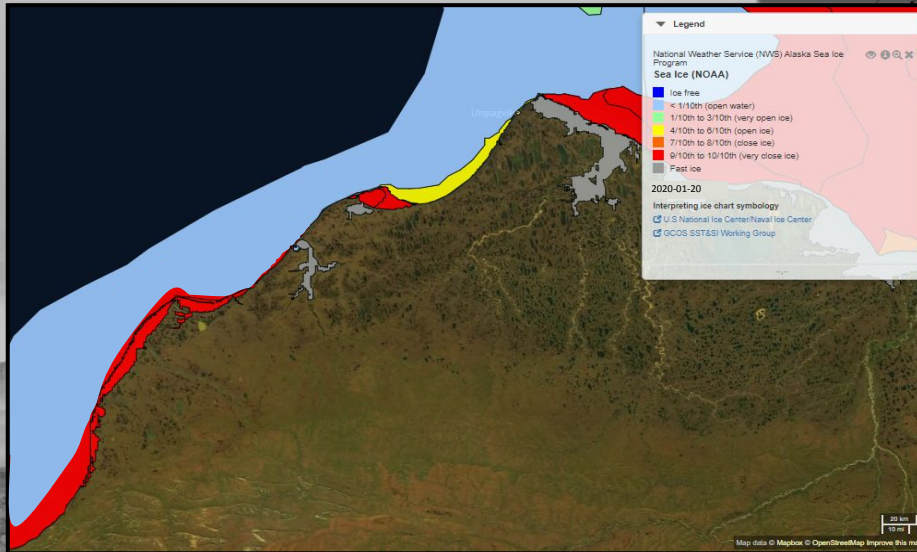
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Coastal Flood Warning – Current Sea Ice

Created: 1/21 04:00PM AKST



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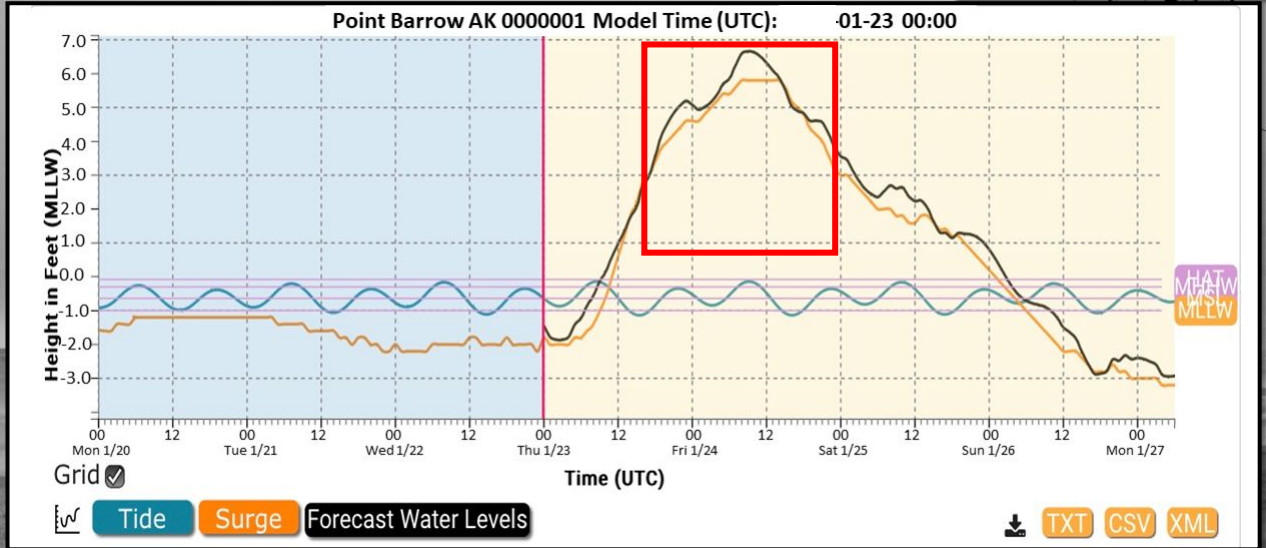
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Do you use sea ice information? How? What decisions do you make related to sea ice? Is sea ice an important element in your winter weather considerations?



Coastal Flood Warning – Water Level Forecast

Created: 1/21 04:00PM AKST



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What about this water level forecast? Is this important information? What does it tell you?



Details and Forecast Confidence

Created: 1/21 04:00PM AKST

- A strong low pressure system moving through the Bering Sea will send a weather front across the North Slope, bringing strong winds, heavy snow, and a potential for coastal flooding.
- The threat of strong winds and heavy snow will occur Wednesday morning through early Friday morning, while the threat for coastal flooding will be Thursday morning through Friday afternoon, which is after the winds switch to westerly.

Forecast Type

Confidence

Snow Amounts



Wind Speeds



Coastal Flooding



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Back to details and confidence: How helpful is the confidence information broken out by forecast element like this? Does this confidence information influence your decision-making?



Contact Information

If you have any questions or want more details on this storm please contact the National Weather Service one of the following ways:

Email us at fairbanks.weather@noaa.gov

Facebook: <https://www.facebook.com/NWSFairbanks/>

Twitter at @NWSFairbanks

More details at <https://www.weather.gov/Fairbanks>



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Do you contact your local NWS office? How? When?

WEATHER PREDICTION CENTER
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NCEP: AWC CPC EMC NCO NHC OPC SPC SWPC WPC

HOME FORECASTS & ANALYSES ARCHIVES VERIFICATION INTERNATIONAL DEVELOPMENT ABOUT SEARCH

Winter Storm Severity Index (WSSI)

The WSSI does not depict official warnings and should always be used in contact with official NWS forecasts and warnings. For a users guide and more information about the WSSI, please select from the dropdown menu below. [Click Me for Additional Information](#)

*NEW! Rolling 24 HR WSSI Display located here
 Probabilistic WSSI (PWSSI) Display Located here

Overall Impact Snow Amount Snow Load Ice Accumulation Flash Freeze Blowing Snow Ground Blizzard

Overall Impact: Maximum impact from any of the components.
 Days 1-3 Day 1 Day 2 Day 3 **EXPERIMENTAL** Day 4 Days 1-4

Select Zoom Area: [CONUS] CONUS [Print Map](#)

Winter Storm Severity Index - Effective From Fri, Jun 10, 2022 06 PM ET Through Sun, Jun 12, 2022 08 PM ET
 Last Updated: Friday, June 10, 2022 06:12 PM ET

Change image opacity:

Download Latest WSSI in GIS Format:
[Download Data in KMZ](#)
[Download Data in SHP](#)
[REST Service Links](#)

*NEW! WSSI Static Image Archive:
[WSSI Static Image Archive Data](#)

Have you visited this site before?

Explain the features/give tour of the site. Note that this is for CONUS only but that there will be one for Alaska in the future.

What features of the website are most useful to you?

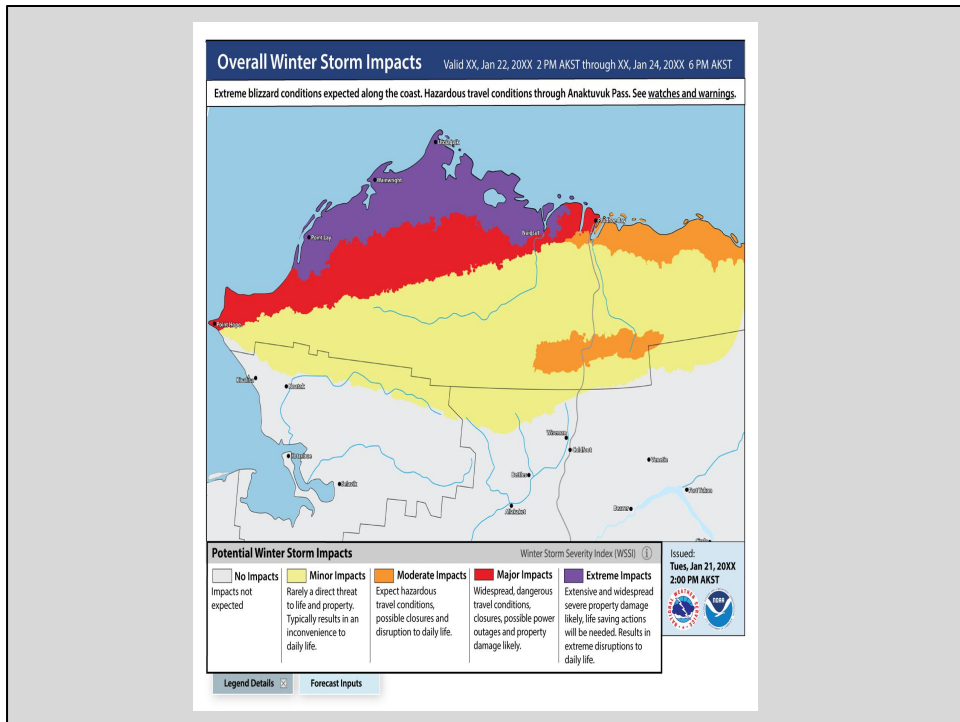
Is there anything that is missing? What additional functionality would be helpful?

Is there anything that is confusing?

How would you use the information/products on this site? When would you use it (i.e. how many days before storm)?

Ask about rolling window - is this useful? Would you use this and if so, how?

Do you prefer static images to the interactive website?



Anything else you would add? Look at forecasters' note and legend again. Leading components/impacts that need to be included in a useful product.